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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,376	04/13/2004	Akio Saiki	5000-5166	4855
27123	7590	05/17/2007		
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			EXAMINER GILLAN, RYAN P	
			ART UNIT	PAPER NUMBER
			3746	
			MAIL DATE	DELIVERY MODE
			05/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/823,376	Applicant(s) SAIKI ET AL.	
	Examiner Ryan P. Gillan	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2004.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-19 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 4/13/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :10/6/06, 6/19/06, 11/22/05, 9/8/05, 8/26/04, 4/13/04 :

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Kato (EP 1,031,726 A2). Kato teaches a compressor, comprising: a first member having a first sliding surface 21; and a second member 31 having a second sliding surface, wherein one of the sliding surfaces slides on the other sliding surface (clearly seen in figure 1), and wherein a sliding film made of a binder resin is formed on at least one of the first sliding surface and the second sliding surface (paragraph 2), the binder resin containing at least solid lubricant and inorganic particles (paragraph 6); wherein the binder resin is polyamide-imide (paragraph 15); a housing in which a suction chamber 24, a discharge chamber 29, and a cylinder bore are defined 21; a drive shaft 18, which is rotatably supported by the housing; a piston accommodated in the cylinder bore (clearly seen in figure 1), wherein the piston reciprocates in the cylinder bore and defines a compression chamber in the cylinder bore (clearly seen in figure 1); and a swash plate 19, wherein the swash plate is engaged with the piston via shoes 23 such that rotation of the drive shaft is converted into reciprocation of the piston, wherein the rotary valve rotates integrally with the drive shaft, and wherein the compression

chamber is connected with the suction chamber through the rotary valve (paragraph 29).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato. Kato teaches all of the above mentioned claim limitations, but fails to explicitly disclose the first member including the shoes, and wherein the second member including at least one of the piston and the swash plate or the first member including the housing, and wherein the second member including at least one of the drive shaft and the piston or the first member including the housing, and wherein the second member includes the rotary valve. It would have been obvious to one of ordinary skill in the art at the time of the invention to coat all of the above mentioned sliding surfaces as means of improving sealing and wear resistance properties (paragraph 2).

5. Claim 2, 4-6, 12, 13 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato in view Sagawa et al. (5,356,971). Kato teaches all of the above cited claim limitations, but fails to explicitly disclose the following claim limitations taught by Sagawa: the sliding film containing a silane coupling agent (col. 3 lines 49-53); wherein the inorganic particles are of titanium oxide powder (col. 3 lines 49-53,

figures 1-5, Tipure R-960); wherein the average primary particle diameter of the titanium oxide powder is 1 μm or less (col. 3 lines 49-53, figures 1-5, Tipure R-960). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kato by incorporating the silane and titanium oxide as the coupling agent and binder taught by Sagawa, as a means of improving adhesive and wear resistance properties (abstract).

6. Claims 6, 7, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato and Sagawa in view of CN1227241 A. The combination of Kato and Sagawa teach all of the above cited claim limitations, but fail to explicitly disclose the following claim limitations taught by CN1227241 A: the content of the titanium oxide powder relative to the binder resin is in the range between 5% by mass and 35% by mass, inclusive (claim 1); the content of the titanium oxide powder relative to the binder resin is in the range between 10% by mass and 20% by mass, inclusive (claim 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Kato and Sagawa in order to incorporate the titanium oxide to binder percentages taught by CN1227241 A as a means of improving wear-resistance (abstract).

Conclusion

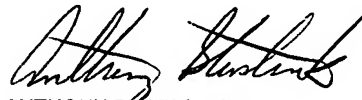
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan P. Gillan whose telephone number is (571) 272-8381. The examiner can normally be reached on M-F 8am-4pm.

Art Unit: 3746

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on (571) 272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RPG



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